IN THE CLAIMS

1. (Original) A gradient coil assembly for a magnetic resonance imaging system comprising:

an first gradient coil configured to generate a first gradient field in a first field of view;

a second gradient coil configured to generate a second gradient field orthogonal to said first gradient field in a second field of view; and

a third gradient coil configured to generate a third gradient field orthogonal to said first gradient field and said second gradient field in a plurality of fields of view.

2. (Original) The gradient coil assembly of Claim 1 wherein said first gradient coil, said second gradient coil and said third gradient coil comprise an Z-axis, a X-axis and a Y-axis gradient coils respectively.

3. (Original) The gradient coil assembly of Claim 1 wherein at least one of said first gradient coil and said second gradient coil comprise only a single gradient coil.

4. (Original) The gradient coil assembly of Claim 1 wherein said plurality of fields of view comprises a wide field of view and a zoom field of view.

5. (Original) A gradient coil assembly for a magnetic resonance imaging system comprising

an first gradient coil configured to generate a first gradient field in a single field of view;

a second gradient coil configured to generate a second gradient field orthogonal to said first gradient field in at least one field of view; and

a third gradient coil configured to generate a third gradient field orthogonal to said first gradient field and said second gradient field in a plurality of fields of view; and

wherein at least one of said first gradient coil and said second gradient coil comprise only a single coil and said third gradient coil comprises a plurality coils configured to generate said plurality of fields of view.

6. (Original) The gradient coil assembly of Claim 5 wherein said first gradient coil, said second gradient coil and said third gradient coil comprise an Z-axis, a X-axis and a Y-axis gradient coils respectively.

7. (Original) The gradient coil assembly of Claim 5 wherein said plurality of fields of view comprises a wide field of view and a zoom field of view.

8. (Withdrawn) A method for decreasing gradient field pulse sequence duration for a magnetic resonance imaging system, the method comprising:

establishing an allowable gradient field strength for an axis of a plurality of axes for a field of view;

applying a weighting factor associated with each said axis of said plurality of axes;

establishing a slew rate responsive to a selected axis of said plurality of axes that exhibits a largest gradient field strength in light of said weighting factor and said field of view; and

operating said plurality of axes at said largest gradient field strength.

9. (Withdrawn) The method of Claim 8 wherein said establishing is responsive to an effective gradient coil length.

10. (Withdrawn) The method of Claim 8 wherein said weighting factor is one of a plurality of weighting factors corresponding to comparative allowable gradient field strengths among said plurality of axes.

11. (Withdrawn) The method of Claim 8 wherein said plurality of axes correspond to an X, Y, and Z axes of said magnetic resonance imaging system.

12. (Withdrawn) The method of Claim 8 wherein said operating includes limiting a gradient field strength of only said selected axis of said plurality of axes.

13. (Withdrawn) A method for reducing peripheral nerve stimulation for a magnetic resonance imaging system, the method comprising:

establishing an allowable gradient field strength for an axis of a plurality of axes for a field of view;

applying a weighting factor associated with each said axis of said plurality of axes;

establishing a slew rate responsive to a selected axis of said plurality of axes that exhibits a largest gradient field strength in light of said weighting factor and said field of view; and

operating said plurality of axes at said largest gradient field strength.

14. (Withdrawn) The method of Claim 13 wherein said establishing is responsive to an effective gradient coil length.

15. (Withdrawn) The method of Claim 13 wherein said weighting factor is one of a plurality of weighting factors corresponding to comparative allowable gradient field strengths among said plurality of axes.

16. (Withdrawn) The method of Claim 13 wherein said plurality of axes correspond to an X, Y, and Z axes of said magnetic resonance imaging system.

17. (Withdrawn) The method of Claim 13 wherein said operating includes limiting a gradient field strength of only said selected axis of said plurality of axes.

18. (Original) A system for decreasing gradient field pulse sequence duration in a magnetic resonance imaging system, comprising:

a magnetic resonance imaging system including a gradient coil assembly for a magnetic resonance imaging system comprising:

an first gradient coil configured to generate a first gradient field in a first field of view;

a second gradient coil configured to generate a second gradient field orthogonal to said first gradient field in a second field of view; and

a third gradient coil configured to generate a third gradient field orthogonal to said first gradient field and said second gradient field in a plurality of fields of view.

19. (Original) The system of Claim 18 wherein said first gradient coil, said second gradient coil and said third gradient coil comprise an Z-axis, a X-axis and a Y-axis gradient coils respectively.

20. (Original) The system of Claim 18 wherein at least one of said first gradient coil and said second gradient coil comprise only a single gradient coil.

21. (Original) The system of Claim 18 wherein said plurality of fields of view comprises a wide field of view and a zoom field of view.

22. (Original) A system for reducing peripheral nerve stimulation in a magnetic resonance imaging system, comprising:

a magnetic resonance imaging system including a gradient coil assembly for a magnetic resonance imaging system comprising:

an first gradient coil configured to generate a first gradient field in a first field of view;

a second gradient coil configured to generate a second gradient field orthogonal to said first gradient field in a second field of view; and

a third gradient coil configured to generate a third gradient field orthogonal to said first gradient field and said second gradient field in a plurality of fields of view.

23. (Withdrawn) A storage medium encoded with a machine-readable computer program code;

said code including instructions for causing a computer to implement a method for reducing peripheral nerve stimulation for a magnetic resonance imaging system, the method comprising:

establishing an allowable gradient field strength for an axis of a plurality of axes for a field of view;

applying a weighting factor associated with each said axis of said plurality of axes;

establishing a slew rate responsive to a selected axis of said plurality of axes that exhibits a largest gradient field strength in light of said weighting factor and said field of view; and

operating said plurality of axes at said largest gradient field strength.

24. (Withdrawn) A computer data signal comprising code configured to cause a processor to implement a method for reducing peripheral nerve stimulation in a magnetic resonance imaging system, the method comprising:

establishing an allowable gradient field strength for an axis of a plurality of axes for a field of view;

applying a weighting factor associated with each said axis of said plurality of axes;

establishing a slew rate responsive to a selected axis of said plurality of axes that exhibits a largest gradient field strength in light of said weighting factor and said field of view; and

operating said plurality of axes at said largest gradient field strength.

25. (Withdrawn) A system for decreasing gradient field pulse sequence duration and reducing peripheral nerve stimulation with known gradient pulse areas for a magnetic resonance imaging system, the method comprising:

a means for establishing an allowable gradient field strength for an axis of a plurality of axes for a field of view;

a means for applying a weighting factor associated with each said axis of said plurality of axes;

a means for establishing a slew rate responsive to a selected axis of said plurality of axes that exhibits a largest gradient field strength in light of said weighting factor and said field of view; and

a means for operating said plurality of axes at said largest gradient field strength.